The drawings have also been objected to under 37 CFR 1.83 (a) as not showing every feature of the invention specified in the claims referring to a plurality of rotatable casings in claim 3 as well as the blinker and blinker returning position of claim 15 as well as the first and second evaluation electronics of claim 14. In responding to this objection, claim 3 has been cancelled and replaced with new claims 17 and 18, each reciting one single code disc and one single rotatable case component. Claims 14 and 15 have been cancelled.

The specification has been objected to as failing to provide proper antecedent basis for the claims, in particular the limitations of claims 13 and 14 reciting "at least one of said secondary transmission". In responding to this rejection, claims 13 and 14 have been cancelled.

Claims 3 and 4 stand rejected under 35 USC 112 second paragraph as being indefinite referring to the language "one of said code disc and said rotatable case component". In addressing this rejection, claim 3 has been cancelled and the subject matter contained in new claim 17 and 18 each of which recites one single code disc and one single rotatable case component. Claim 3 also stands rejected under 35 USC 112 second paragraph with regard to the recitation of the projection extending in an axial direction and the recess in a radial direction, since axial and radial directions on a disc are unclear. Similar objections have been raised with regard to the pin being eccentrically disposed and extending in an axial direction with the recess in a radial direction, as recited in claim 4. In responding to these rejections claims 3 and 4 have been cancelled and the subject matter contained in new claims 17 through 20, wherein the language axial and radial has been replaced with language referring to

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the direction of extension as defined by the longitudinal extent of the steering column, with axial being defined as parallel to that direction and radial as substantially transverse thereto. The word "eccentric" has been cancelled.

Claim 3 furthermore stands rejected under 35 USC 112 second paragraph with regard to the language in line 5 thereof "in an other". In responding to this rejection, claim 3 has been cancelled and the language corrected in new claims 17 and 18, corresponding to original claim 3.

Claims 13 and 14 stand rejected with regard to the limitation of "at least one of said secondary transmission". In responding to this rejection, claims 13 and 14 have been cancelled.

Claims 1 through 15 stand rejected under 35 USC 112 second paragraph due to language concerning the stationary signal transmission case component in claim 1. In responding to this rejection, claim 1 has been cancelled and new claim 16 does not include recitation of the signal transmission case.

Claims 1 through 14 have been rejected under 35 USC 102(e) as being anticipated by Sano (US patent 6,272,912). In responding to this rejection, claim 1 has been cancelled and replaced with new claim 16. New claim 16 contains a preamble reciting background structure for the steering column module, referring to the steering column which is borne for rotation within a stationary tubular jacket. Disclosure for this recitation as well as the following recitations to be discussed in relation

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to claim 16 can be found, among other locations, on page 10 last paragraph of the specification.

The new independent claim recites a first switch member mounted to the tubular jacket and a rotatable signal case component mounted for secure rotation to the steering column. A code disc is connected to the rotatable signal case component and a stationary steering angle module is mounted to the first switch member, the first steering angle module having an associated steering angle sensor communicating with the code disc to measure an associated steering angle of the steering column. The code disc is mounted for secure rotation along with the steering column and the steering angle sensor is mounted in a stationary manner and borne via the first switch member and the steering angle module on the tubular jacket surrounding the steering column module. Since the tubular jacket bears the steering column for rotation thereof, good tolerance must obtain between the tubular jacket and the steering column with appropriate bearing surfaces being defined by that tubular jacket. Therefore, the rotational relationship between the stationary tubular jacket and the rotating steering column must be well defined and precise. By mounting the steering angle sensor, responsible for measuring the steering angle, to the tubular jacket and by mounting the code disc, responsible for measuring the degree of rotation, to the steering column, the angular relationship between the code disc and the steering angle sensor has the structural integrity and tolerance level of the precise mechanical relationship between the stationary tubular jacket and the steering column. This provides for more precise definition of the steering angle than in prior art, as will be discussed in detail below.

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The Sano reference concerns a more precise determination of the steering angle in a motor-vehicle. Sano's primary concern are tolerances which result through a transmission of mechanical connections between a first rotor and a second rotor which are connected to each other by means of a snap fit. As a result of this connection, the second rotor rotates in dependence on an amount of play between the first and second rotors which, in consequence of wear, changes with time. The actual angle of the steering column is measured by an additional member which is connected to the second rotor and which therefore inherits the lack of mechanical precision between the first and second rotor. Sano solves this problem by effecting a direct connection between the first rotor and the rotary member measuring the steering angle thereby avoiding the intermediate connection to the second rotor (see Sano column 5 lines 23 through 67). Concerning the mounting of the stationary member (stator), Sano merely states that the stator 7 of the rotor connector is fixed to the car body (Sano column 12 lines 61 through 63).

One of average skill in the art aware of the teaching of Sano would not be motivated to mount the stator of Sano to a tubular casing enclosing and bearing the steering column, since Sano is completely silent on stabilizing the relationship between the stator and the rotating components and since Sano is concentrated on improving the intrinsic mechanical integrity of the rotary components among themselves and not relative to the stator. In fact, Sano teaches away from the invention as claimed since Sano not proposes mounting the stator components to the car body. The fact that Sano is completely silent about the means by

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which the mounting of the stationary components to the car body is effected, suggests to one of average skill in the art that this mounting is not critical to precise determination of the precision of the angle of rotation of the steering wheel. However, in accordance with the invention, the claimed structure of new claim 16 addresses the fact that it is the **relative** precision between the static and rotating components which determines the precision of the angular measurement and not the intrinsic stability of the rotating components among themselves. By reciting claim language which dictates that the stationary components be mounted to a tubular shell bearing the steering column, with the rotating components mounted to the steering column itself, the invention recites a structure having a mechanical integrity defined by the geometric relationship between the tubular shell within which the steering column is mounted and the steering column. However, as mentioned above, this relationship must be a stable one to assure proper bearing of the steering column within the tubular shell. By inheriting this mechanical integrity, the steering column module as claimed provides for a more precise angular measurement which is not susceptible to tolerance variations due to substantial wear over time.

For the reasons mentioned above, the invention as now claimed recites elements not disclosed in prior art having associated advantages and is therefore sufficiently distinguished from that prior art to satisfy the conditions for patenting in the United States. Passage to issuance is therefore requested.

No new matter has been added in this amendment.

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Enclosures

Amended figures 3 and 4 in marked-up copy and marked-up specification paragraph in square-bracketed and underlined form

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Last paragraph of page 11 extending to page 12

A printed circuit-board 33 of the steering angle sensor 3 is provided with a scanning device [34] which consists substantially of a transmitter 35 with e.g. 4 light diodes and a receiver 37 with e.g. 4 transistors. In the assembled state, the transmitter 35 emits light through the holes of the code disc 27 to the receiver 37. The arrangement of the holes in the incremental track 29 and the code track 31 of the code disc 27 determine the steering angle throughout a steering wheel rotational range of 360°.

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